



# UNITED STATES PATENT AND TRADEMARK OFFICE

*Dale*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,837	01/22/2004	David M. Mitteer	GRA01 P-423	5886
277	7590	01/12/2006	EXAMINER	
PRICE HENEVELD COOPER DEWITT & LITTON, LLP			ROJAS, BERNARD	
695 KENMOOR, S.E.			ART UNIT	PAPER NUMBER
P O BOX 2567			2832	
GRAND RAPIDS, MI 49501				

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/762,837	MITTEER ET AL.	
	Examiner Bernard Rojas	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 August 2005.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 10-22 is/are allowed.
- 6) Claim(s) 1,2,4-7 is/are rejected.
- 7) Claim(s) 3,8 and 9 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05252004 04262005
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

The Election/Restriction requirement of 07/27/2005 is hereby withdrawn. As stated by Applicant, the newly amended method of making an electrically powered actuator assembly of claims 17-21 cannot be made by another and materially different process than those for the product of claims 1-16 for an electrically powered actuator assembly.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kolb et al. [US 2005/0024174].

Claim 1, Kolb et al. discloses an electrically powered actuator comprising: a housing [50]; a coil [36] disposed in the housing for generating a magnetic field when an electric current passes through the coil; a center pole [56] disposed within the coil, wherein the center pole is made of a ferromagnetic material; a rod assembly [44] movably disposed in the housing for movement between a rest position and an energized position, the rod assembly having a portion thereof disposed in the center pole, and including a magnet [38] having a polarity causing the magnet to be repelled

Art Unit: 2832

from the center pole when an electric current passes through the coil; and wherein: the magnet is encapsulated by an elastomeric material [34] that contacts a stop surface when in the rest position to reduce noise resulting from shifting of the rod assembly from the energized position to the rest position.

Claim 2, Kolb et al. discloses the solenoid of claim 1, wherein: the rod assembly has an elongated body portion comprising a polymer material [upper section of 44, 48].

Claim 3, Kolb et al. discloses the solenoid of claim 2, wherein: the polymer material has a reflow temperature that is greater than the injection molding temperature of the elastomeric material.

Claim 4, Kolb et al. discloses the solenoid of claim 3, wherein: the magnet is generally disk-shaped with generally parallel side surfaces and an opening extending between the side surfaces, and wherein the body portion extends along the side surfaces to retain the magnet [figure 2].

Claim 5, Kolb et al. discloses the solenoid of claim 4, wherein: the body portion includes a pair of outwardly extending flanges forming an annular groove therebetween having a base surface and parallel sidewall surfaces, the base surface and the sidewall surfaces contacting the magnet [figure 2].

Claim 6, Kolb et al. discloses the solenoid of claim 2, wherein: the magnet is positioned adjacent a first end of the rod assembly; and wherein: the rod assembly includes a pawl member [48] made of a non-ferromagnetic material at a second end of

the rod assembly, the pawl member being made of material that is substantially harder than the polymer material of the body portion.

Claim 7, Kolb et al. discloses the solenoid of claim 6, wherein: at least a portion of the pawl member extends outside of the housing when the rod assembly is in the rest position [figure 2].

***Allowable Subject Matter***

Claims 3, 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10-22 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach nor suggest, in the claimed combination, a rod assembly for an electrically powered linear actuator, comprising: an elongated body made of a first material having a first melting temperature; a magnet connected to the elongated body; and a second material encapsulating at least a portion of the magnet, the second material having a second melting temperature that is less than the first melting temperature.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Br

  
JGD  
JPE-Am 032  
01/09/06